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Bohartiellus, a New Genus of Doryctinae from South America (Hymenoptera: Braconidae)

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Throughout my undergraduate study in entomology at the University of California, Davis, I was undecided about an area of specialization. During the summer of my senior year I enrolled in the summer field course, Ent. 49, which was required for graduation. That year the six-week course was held at the Southwest Research Station in Portal, Arizona, under the direction of Richard M. Bohart. Those six weeks were a memorable experience and I probably learned more about insects during that short amount of time than during the previous four years. Dick's enthusiasm about insects and his interest in the students made it clear to me that taxonomy was the field I would pursue.

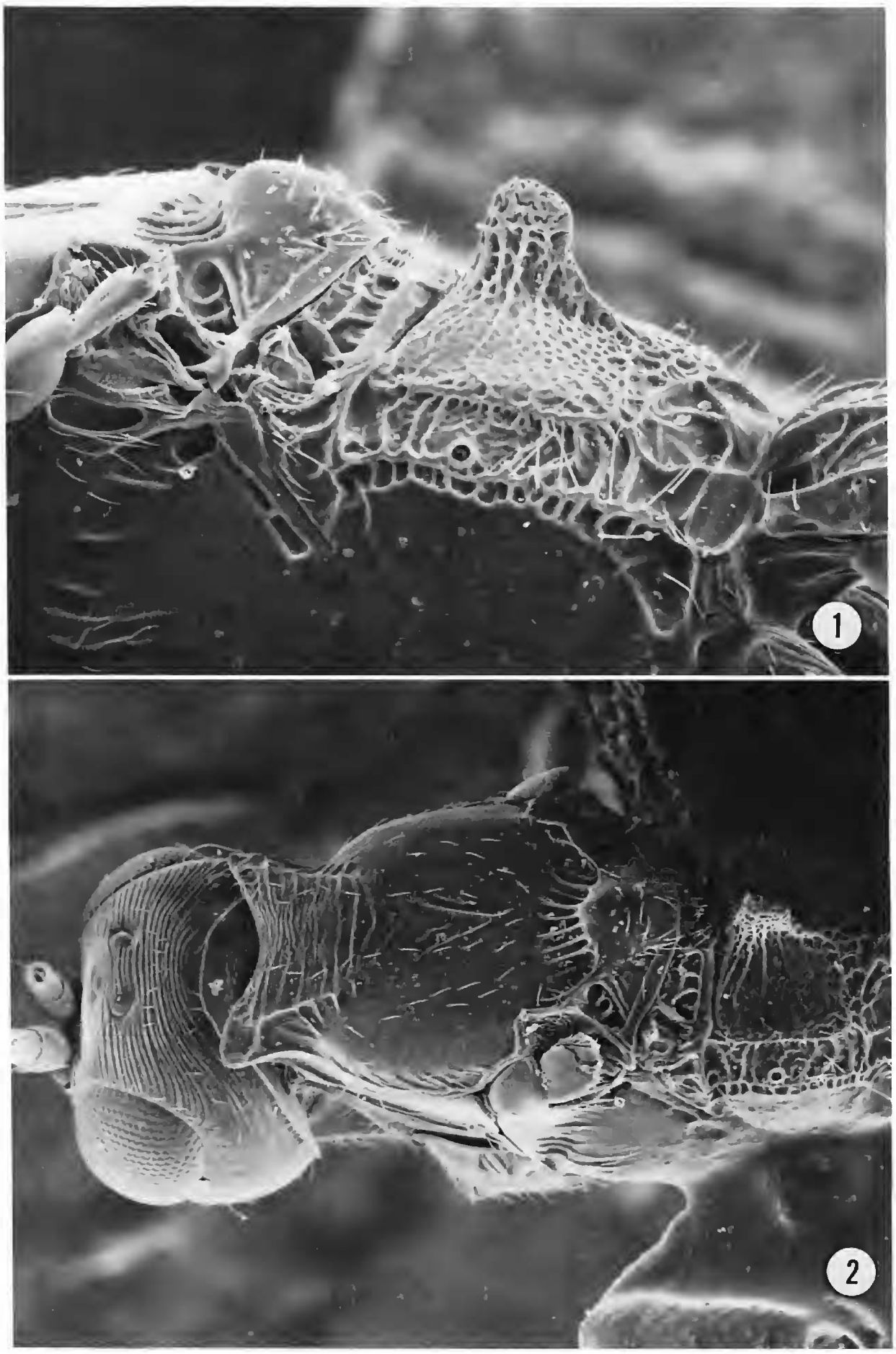
When I began graduate work, the major question became which group of insects to study. Since Dick was my advisor, I expected he would suggest a group of aculeate wasps, his first love. During our first discussion, however, I recall Dick saying to me, "Paul, if I were starting now, I would take up the Braconidae." He must have sensed the emerging concern about the effects of insecticides on the environment and the resulting need to emphasize biological control, at the heart of which is knowledge of natural enemies of insect and mite pests, particularly the parasitic wasps. I took his advice and launched into a thesis research problem on the systematics of Braconidae. Shortly before I completed my Ph.D. degree in 1964, Rachel Carson published "Silent Spring" and biological control took on a new and important meaning. Three days after handing in my thesis, I reported to Washington, D.C., to begin my career as a specialist on the Braconidae for the USDA's Systematic Entomology Laboratory.

I owe an extreme debt of gratitude to "Doc" Bohart for his influence on my career and his training and encouragement during my student days at Davis. To this end I dedicate the remarkable genus of Braconidae described below to a remarkable man.

Bohartiellus Marsh, NEW GENUS (Braconidae: Doryctinae)

Diagnosis.—Head cuboid, occipital carina present, clypeus semi-circularly emarginate and together with mandibles forming a circular mouth opening; foretibia with row of 6–8 stout spines along anterior edge; propodeum medially at base with a laterally flattened lamella which projects dorsally (Fig. 1); forewing (Fig. 3) with two cubital cells, recurrent vein ending at first cubital cell, nervulus present, first brachial cell closed at apex well before recurrent vein; hindwing (Fig. 3) without nervellus; male abdomen elongated, often more than twice as long as thorax, due to telescoping and extension of segments 4–7.

Type of genus.—*Bohartiellus cornutus* Marsh, new species.



Figs. 1, 2. *Bohartiellus cornutus.* 1, Propodeum, lateral view. 2, Head and thorax, dorsal view.

Etymology.—Named for Richard M. Bohart, mentor and friend.

This genus is similar in wing venation and elongation of the male abdomen to *Aivalykus* Nixon but differs from *Aivalykus* and from all known western hemisphere Doryctinae by the unusual lamella projecting dorsally from the propodeum (Fig. 1). In this regard it is similar to *Spathioplites* Fischer from Chad

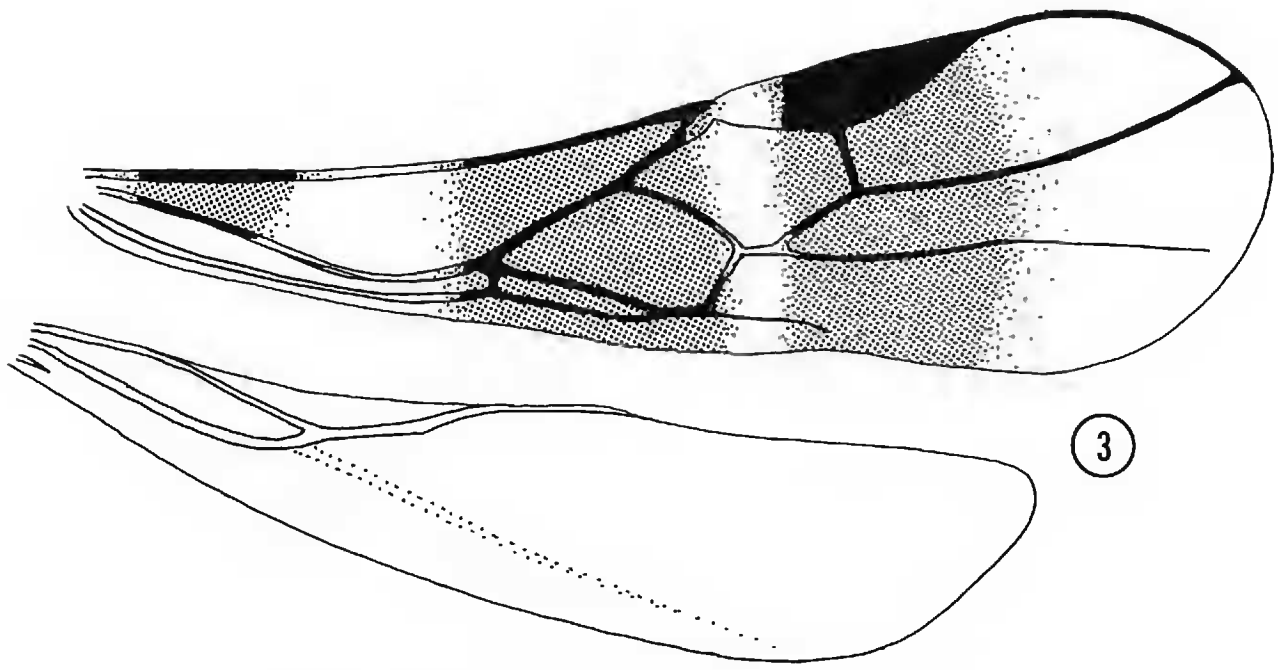


Fig. 3. *Bohartiellus cornutus,* fore and hindwings.

(French Equatorial Africa) but the lamella-like structure of *Spathioplites* arises from the postscutellum rather than from the propodeum as in *Bohartiellus.* Furthermore, *Bohartiellus* has two cubital cells in the forewing whereas *Spathioplites* has three.

Bohartiellus cornutus **Marsh, NEW SPECIES**

(Figs. 1–3)

Female.—Length of body, 2.5–3.0 mm; ovipositor, 2.0–2.5 mm. Color: head dark honey yellow; antenna honey yellow, apical 3–4 flagellomeres brown; thorax and abdomen dark brown, median mesonotal lobe light brown anteriorly; legs brown, fore tarsus yellow, hind tibia yellow at base; forewings banded (Fig. 3). Head: vertex (Fig. 2) and frons strigate[1], temples smooth, face strigate-rugose with median raised smooth area; malar space about ⅓ eye height; ocell-ocular distance about 3 times diameter of lateral ocellus; antenna 17-segmented (broken in holotype). Thorax: median mesonotal lobe strigate-rugose, anterior corners produced into large horn-like structures (Fig. 2), lateral mesonotal lobes smooth; notauli not distinct, indicated only by carinate lines; scutellar furrow with 6–8 cross carinae; scutellum swollen, smooth; mesopleuron smooth, subalar groove weakly scrobiculate; sternaulus absent; propodeum strigate-rugose dorsally, the strigae emanating from median raised lamella, propodeum smooth laterally. Abdomen: first tergum about 2.5 times as long as wide at apex, strigate-rugose; rest of terga smooth and polished; ovipositor as long as abdomen and thorax combined.

Male.—Essentially as in female except for sexual differences.

Types.—Holotype ♀: BOLIVIA: Cavinas, Rio Beni, Wm. M. Mann, Feb. 1922, deposited in the National Museum of Natural History (USNM). Paratypes: 1 ♀, same data as holotype; 1 ♀, 2 ♂♂, BRASIL: Rio Caraguala, 21°48′ B., 52°27′ L., Fritz Plaumann, April 5–7, 1953, deposited in the USNM and the Canadian National Collection, Ottawa (CNC).

[1] All terms for sculpturing are based on Harris, 1979.

This species differs from *Bohartiellus plaumanni,* new species, by the large horn-like anterior corners of the mesonotum, the shorter malar space which is ⅓ the eye height, the swollen scutellum, and the smooth mesopleuron.

The specific name is from the Latin cornutus which means horned in reference to the horn-like projections on the anterior corners of the mesonotum.

Bohartiellus plaumanni **Marsh, New Species**

Female.—Length of body, 2.5 mm; ovipositor, 2.0 mm. Color: entire body and legs brown except basal antennal segments and all tarsi which are honey yellow; forewing banded as in *cornutus.* Head: vertex and frons strigate, temples smooth, face strigate-rugose with median raised smooth area; malar space about ½ eye height; ocell-ocular distance about 3 times diameter of lateral ocellus; antenna 17-segmented. Thorax: mesonotal lobes coriaceous, anterior corners of mesonotum without large horn-like projections as in *cornutus*; notauli distinct and strongly scrobiculate; scutellar furrow with 6–8 cross carinae; scutellum flat, smooth; mesopleuron strigate, subalar groove weakly scrobiculate; sternaulus absent; propodeum strigate-rugose dorsally, the strigae emanating from the median lamella, propodeum smooth laterally. Abdomen: first tergum about 1.5 times as long as wide at apex, strigate-rugose; rest of terga smooth and polished; ovipositor as long as abdomen and thorax combined.

Male.—Essentially as in female except for sexual differences.

Types.—Holotype ♀: BRASIL: Rondon, 24°38′ B., 54°07′ L., Fritz Plaumann, VIII-1952, deposited in the CNC. Paratypes: 1 ♀, 2 ♂♂, same data as holotype, deposited in USNM and CNC.

This species differs from *Bohartiellus cornutus* by the reduced anterior corners of the mesonotum, the longer malar space which is ½ the eye height, the flat scutellum, and the strigate mesopleuron.

This species is named after its collector Fritz Plaumann.

Literature Cited

Harris, R. A. 1979. A glossary of surface sculpturing. Calif. Dept. Food Agric., Ent. Occas. Pap. No. 28, 31 pp.